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THE NEW ARIZONA:

A BRIEF REVIEW

OF ITS

RESOURCES, DEVELOPMENT
INDUSTRIES, SOIL
CLIMATE

AND ESPECIALLY ITS

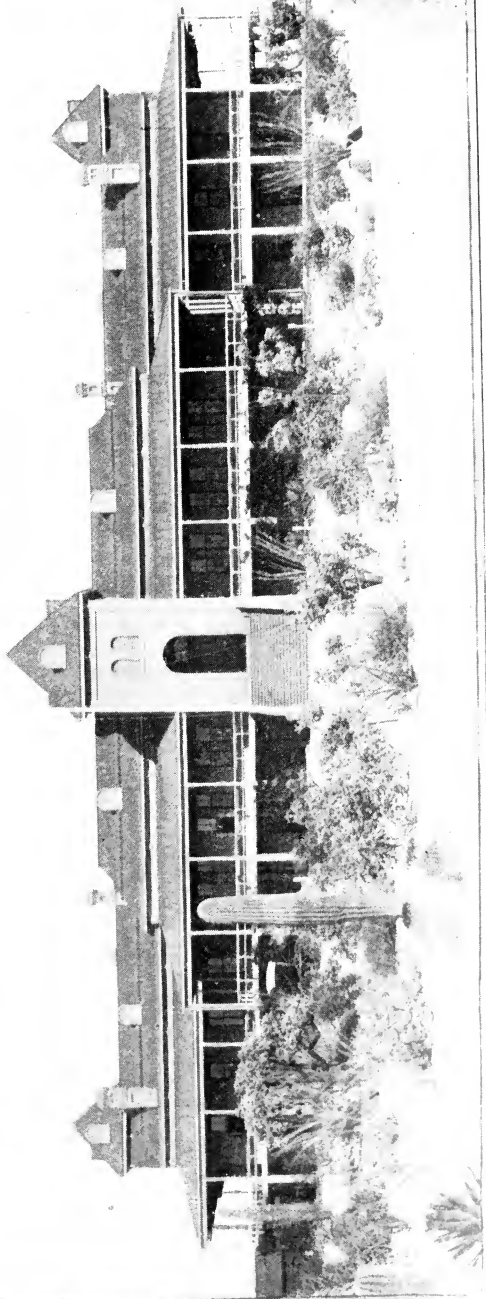
Advantages for Homemaking



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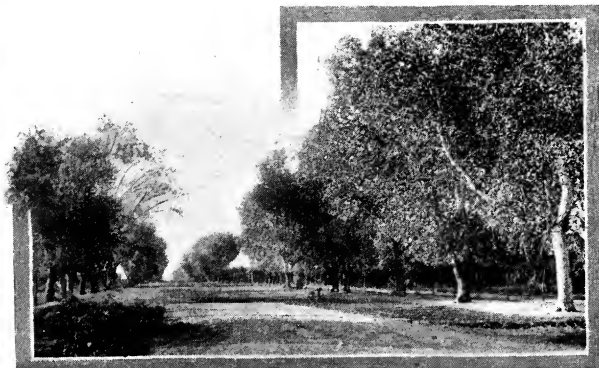
The Territory of Arizona, soon to become a State, is situated between latitude 31 degrees and 37 degrees N., and longitude 109 degrees and 114 degrees 40 minutes W. On the north is Nevada and Utah, on the east New Mexico, on the south the Mexican State of Sonora, and on the west California and Nevada.

The face of the country may be generally described as a vast elevated plateau, having its greatest height (from 5,000 to 6,000 feet) in the north and east, whence it descends in successive slopes to the sea-level in the southwest. In the region of the north these plateaus are sun-dered and riven by tremendous fissures, dark canyons and narrow valleys, while from the general surface rise pine-clad mountain ranges and isolated peaks. The most extensive of these mesas, or table-lands, is the Colorado plateau, which stretches from about the central part to the northern boundary. Its surface is broken by massive mountain ranges, such as the San Francisco, Bradshaw, and Mogollon, whose rugged sides drain into the Colorado, Verde and other smaller rivers.

Throughout this grim region are many mountain parks, beautiful glens and sheltered valleys, with a generous soil and a climate that makes one glad to be alive.

South of the thirty-fourth parallel there is a sudden descent of 3,000 feet in the general level of the plateaus, followed by as great a change in the aspect and nature of the country. From here to the southern boundary are immense plains and valleys, crossed in all directions by detached mountain ranges and single peaks, chiseled into strange shapes by sun and water. The streams that have their birth in the high lands of the north flow through these valleys on their way to the sea, watering and enriching them with the soil they have gathered in their turbulent careers. And here is the valley of the Gila and the Salt, the bountiful lap of Arizona, filled with pomological possibilities, to which the golden apples of the Hesperides were "Siberian crabs."

The extreme southwestern part of the Territory adjacent to the gulf is a lonely land of gravelly plains and disjointed mountains, bare except for a ragged covering of coarse grass and dry shrubs.



AVENUE SCENE, TEMPE.



IRRIGATING CANAL NEAR PHOENIX.

In the southeast, on the contrary, the mighty ranges of the north reappear, but without their native savagery. For the ranges of the Santa Catalinas, the Santa Ritas, the Huachucas, and others are wooded and watered and valleyed in green.

WHAT CAN YOU DO IN ARIZONA?

The message contained in this pamphlet is not written in a reckless spirit, with the purpose only of inducing any and everybody to come to Arizona. On the contrary, it is a thoughtful message addressed to thoughtful men. If you are poor, with only your two hands to serve you, there are many other places that will repay manual labor better than Arizona. But if you have a little money, or, better still, a great deal, there are few countries that have within themselves the power to respond so quickly, surely and generously to well-directed efforts.

Arizona is not a "Tom Tiddler's ground," where you can get rich doing nothing. But help to develop its natural resources and it will repay your labor certainly ten, maybe a hundred, possibly a thousand fold. Who can tell? Much depends upon yourself. And the very first question to be considered is: What can you do in Arizona? What possibilities does it offer of which you, personally, can avail yourself.

ARE YOU

A

FARMER?

Then it offers you a great deal for a comparatively small outlay. The chief signal officer, in a report on the climate of Arizona, with particular reference to the question of irrigation (1891), says of Gila and Salt River Valleys: "Rich as is the Arizona soil, it is always a disappointment to the farmer who views it with the prejudices born of familiarity with the deep, rich loam of the prairies. At first sight he can compare it with nothing but the sand of the sea beach; that it could be made to bear a scanty crop of some hardy grass is almost beyond his comprehension; that it does bear enormous harvests of grain, that it is the rival of every vine-growing country in the world, that its orchards are beyond rivalry,

are facts which have to conquer belief in his unwilling mind."

Furthermore, the special committee of the United States Senate, report 298, part 1, May 5, 1890, page 60, says: "Within our borders there cannot be found a soil so uniformly fertile and so capable of varied production, under irrigation, as that of the Gila, Salt and Santa Cruz rivers in central and southern Arizona. Analysis of this soil shows its fertile qualities to be superior to that of the Nile earth."

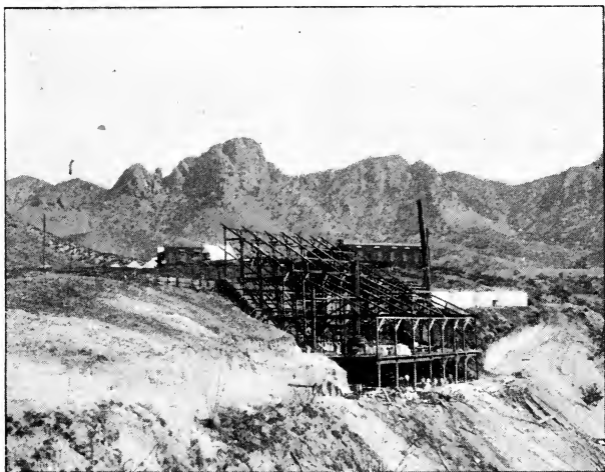
And so the secret of the marvel is the artificial application of water to a wonderful soil. We say "wonderful" advisedly, for out of it grows everything that has leaves, and a good many things that have not.

ARE YOU A MINING MAN?

Arizona's reputation for mineral wealth is well established. So high an authority as Baron Von Humboldt, himself, predicted that the wealth of the world would yet be found in this region. And was not the largest silver "nugget" ever

taken from the earth brought to light in Arizona? It weighed 2,700 pounds. Unfortunately for the Spanish adventurers who found it, it was so very large that his wise and canny majesty of Spain declared it a "curiosity," and so, by the terms of the charter, took it himself. Silver is as plentiful to-day in Arizona as it was then, being unearthed in its pure state and in combination with many base metals. In both conditions it has provided more queer and beautiful cabinet specimens than any other country. That the present low price of silver does not make it profitable to work some of these argentiferous mines, is another matter.

As for gold, that is always valuable, and, while it is not as plentiful as silver, it has been revealed in great quantities, both in its free state and in its matrix of quartz, and in combination with sulphur, lead, antimony, copper and other minerals. It is not so long ago that the discoverers



HALVERTON MINE.

of the placer deposits of Antelope Peak took one-half million of dollars in gold from less than one acre of ground, while the quartz mines are paying more steadily, if not so royally.

Copper of a very high grade is found in large amounts.

The total output of these three metals during the last seventeen years amounts to \$95,000,000. In fact the whole country is a vast mineral treasure house, veined with gold, silver, copper, iron, lead and almost every other metal. From the geological formation of Arizona and a part of New Mexico, it would appear that some volcanic upheaval had thrown all the minerals together in a heap, for they do not follow the usual well-established methods of such deposits in other States and Territories, and until you strike your pick in the ground you scarcely know what kind of a mine you are going to have. Mining discoveries and developments during 1898 increased values more than twenty millions of dollars—the beginning only of a richer future.

ARE YOU

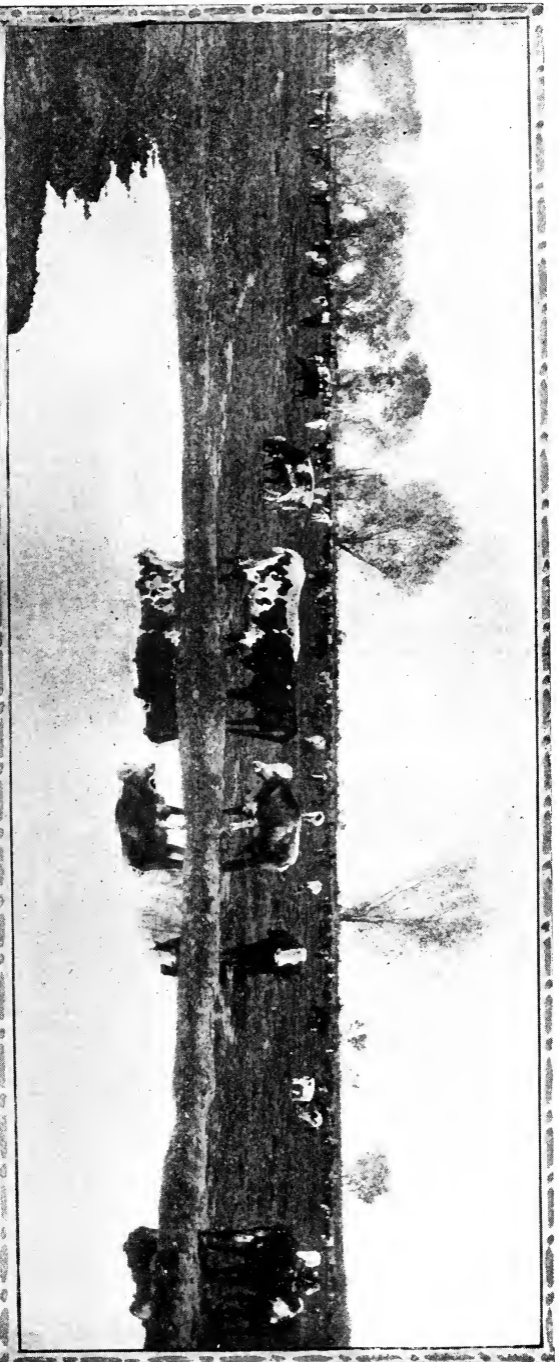
A

STOCKRAISER?

Large tracts of grass land that will provide feed twelve months in the year, water, and a mild climate are what stockmen require. If they get the more important of these advantages only, they may congratulate themselves. At one time certain portions of Arizona offered all of them, and cattle owners were not slow in availing themselves of the offer. In many places the winter is free from extreme cold and violent storms, and rarely is a day lost from inclemency of the weather, while the summer's only danger is an occasional drought. In the rainy season plains and foothills turn green with surprising readiness at the magic touch of the falling waters, and the cattle crop the juicy grasses, grow fat, and are thankful. And when the long season of cloudless sky follows, and all green things die, as all green things that rely solely on the super-bountiful, but infrequent, rains, must in Arizona, the uncut grass turns to hay upon the ground, so that the breeder is saved the trouble of cutting, curing and storing his hay, and has all out doors for a barn.

In addition to these range grasses, which in places cover the ground so luxuriantly after the first rain, there are several kinds of perennial grasses which remain more or less green throughout the year. Ranchmen call these "spear grass," "deer grass," "gietta," and black and white "gramma." Then there are certain small trees, such as the mesquite, palo verde, and others which cattle are fond of browsing. This great variety of feed and the mild weather insures a rapid increase in the herd. Indeed, when feed and water are plentiful, an increase of eighty-five per cent is not unusual.

But, as has been intimated, the picture has a reverse side, for running water is frequently scarce on the big ranges, the rainy seasons are capricious and cattle have to travel long distances to water, to diminution of their increase and their weight. The best ranges, moreover, are apt to become crowded and usually are, and in "off years" cattle have to be shipped out of the territory at a loss, to avoid a worse fate. That these evils were not irremediable, however, and that cattle can be raised with a steady profit, has been recently proved by the immense advance



CATTLE RANCH NEAR TEMPE.

of irrigation and the enormous acreage that has been put into alfalfa for pasturage, a subject that is treated at greater length elsewhere.

POSSIBILITIES FOR MANUFACTURERS.

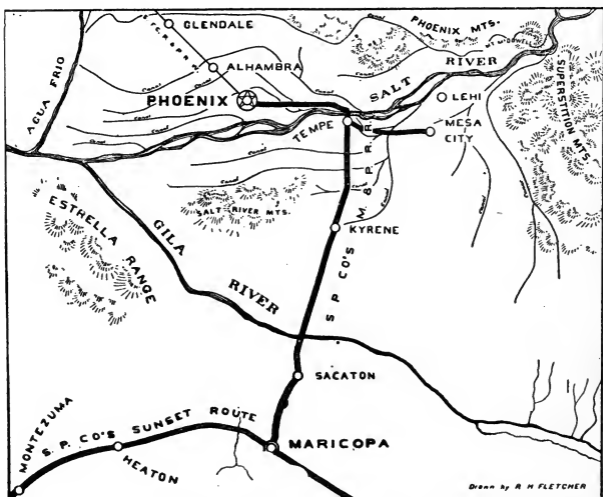
Arizona offers considerable water power and an abundance of raw material capable of being wrought into useful shape. An enterprising man with capital will be embarrassed where to choose. For instance, it is roughly estimated that there are 20,000 square miles of timbered land in Arizona. The Mogollon forest alone is about 200 miles long and 60 miles broad, forming a belt of magnificent pine timber nearly as large as the State of Maryland. In fact, there are hundreds of millions of feet of marketable lumber, some of it accessible to railroads and a good deal of it, of course, that is not.

Thousands of hides are annually shipped from Arizona and brought back again in the form of saddlery, boots and shoes. The territory is rich in tanning material in the shape of barks, shrubs and canaigre, the latter growing wild and also under cultivation. Why should not this wealth of material be manufactured at home?

Millions of pounds of a superior quality of wool are also sent out of the country every year, to be made up into woolen fabrics, while many of the rivers flow in idleness.

Paper, rope and mats can be made from the agave and the amole—native Arizona plants. Indeed, the texture and finish of papers made from these fibres are excellent. They ought, and no doubt will, some day, supplant wood pulp and other cheap substitutes for rags. These shrubs are found growing in every valley and on every mesa and hillside, so that there is quite enough for all the paper manufacturers who read these lines.

The making of soaps, candles, matches and straw goods,



MAP OF SALT AND GILA VALLEYS, SHOWING SOUTHERN PACIFIC COMPANY'S CONNECTIONS,

beef and pork packing, fruit and vegetable canning, and a dozen other industries are practicable. In Phoenix, a town of 12,000 inhabitants, there are ice-factories, planing-mills, iron-foundries, machine-shops, cigar-factories, bee-hive and fruit box factories and canneries, already in operation.

SALT RIVER VALLEY.

This lovely valley has already been referred to. Indeed, the temptation to tell about it has been so great that it required considerable self-denial not to begin with it. Like the good village schoolmaster who, when he "shows off" his school before visitors, proudly calls upon his best and favorite pupils, so the chronicler of Arizona finds himself constantly referring to Salt River Valley. Perhaps it is because this region appeals to the heart as well as to the purse. For, if "all the world loves a lover," all the world loves a home, and Salt River Valley is the land of pleasant homes.

ITS SITUATION AND SURROUNDINGS.

It is in Maricopa County, in Southern Arizona, in latitude $33\frac{1}{2}$ degrees N. It comprises the land lying on either side of the Salt River between the Verde and Gila. The valley proper is about fifty miles long and averages fifteen miles in width. To the east are the Superstition Mountains, to the south the Estrella Range, to the west are the White Tank Mountains, and on the north the Phoenix Hills. There are about 750 square miles, or about 480,000 acres of irrigable land in the Valley. Having thus given its length and breadth it seems natural to give its thickness, for it has a thickness—the thickness of the soil,—which is a deposit varying in depth from ten to fifty feet.

THE SOIL AND HOW IT GOT THERE.

In regions like the Gila and the Salt River Valleys it may be said that the soil is not indigenous. It being one of the remarkable features of this remarkable country, and one which it shares with the valley of the Egyptian Nile, that its soil has been, and is being, brought to it from other regions.

General Greely, in his report previously referred to, says of this matter: "This is a land of inland seas in recent geologic times. Their beaches and shoals have been laid down at several altitudes to serve as foundation for later effects of soil-making.

"The Salt and Gila flow down through the mountains with a fall of 4,000 feet in 500 miles; when they reach the plain they fall but six inches to the mile, their suspended material is deposited along this portion of their course * * The worth of such a soil is a matter dependent on the characteristics of mountain districts hundreds of miles away, and in this case no fault can be found, for the mountains are rich in desirable soil constituents, and this wealth is brought to the plain in the most finely subdivided form, and thus in the best shape for the purposes of agriculture."

ITS CLIMATE.

Statistics under torture, may be made to prove almost anything; nevertheless, one can always gain some sort of information from them. The United States

Signal Service reports from 1877 to 1887 show the average temperature of spring to be 70.5 degrees, of summer, 89.3 degrees, of autumn, 73.1 degrees, and of winter, 56.1 degrees. The highest reached in that period was 115.5 and the lowest 22.5 degrees. While the registering of 115 degrees of heat may seem alarming to a person east of the Mississippi River, it must be remembered that the figures do not carry the same meaning as in New York or St. Louis. The atmosphere in Arizona is so entirely devoid of moisture that 115 degrees is more endurable than 85 degrees in either of those cities.

In fact the heat is never oppressive here, the sweltering, "muggy" days of the Eastern summer being unknown. In the sun's rays, of course, it is very hot, but the air, being so clear, does not get over-heated, and if one stays in the shade, even 115 degrees is quite endurable. The nights are always pleasant, winter and summer. The winter climate is simply delightful. In fact, taken altogether, the climate is about as good as the most deserving person could ask.

THE RAINFALL.

The rainy season is, of course, the winter of Arizona, and usually begins in August. The average rainfall is 6.27 inches. The rain generally falls for a day or two at a time, and then the sky is clear perhaps for a week or more, and these intervals, when Nature is washed and dressed in her gayest colors, are charming. Thunder storms are unusual, being less common than in the Eastern States.

DOES ALL ARIZONA SOIL REQUIRE IRRIGATION?

Yes; not because the soil is hot and dry, but for the reason that the rainfall is insufficient and too capricious to be relied upon. Moreover the soil, as already explained, is very porous and water sinks through it rapidly, therefore it requires frequent renewal. This very porosity is one of the reasons of its extraordinary fertility, for the capillary structure acts like myriad little canals, which carry the enriching chemical constituents of the soil to the roots of the plant.

METHODS OF IRRIGATION.

It is not too extravagant to say that in Arizona man harvests and stores his rainfall, as he does his crops, and uses it when he needs it. After all, this seems more rational than to leave one's crops to chance, to walk the floor at night for fear it will rain, or for fear it won't, to have your neighbor longing for rain on his vegetable garden, while your hay is yet lying in the field. In Arizona each man, as it were, lets the rain come on his farm when he wants it, and turns it off when he has had enough. Certain other men have made a business of storing and selling water to the farmers, such corporations being known as canal companies.

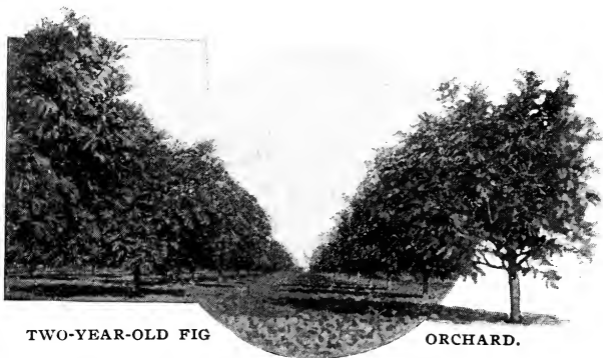
In most countries the land requires preparation for irrigation by working and leveling. In Salt River Valley there is no natural sod to break up, and the ground is

THE ARIZONA IRRIGATING CANAL, SALT RIVER VALLEY.



already nearly level, having only a slight inclination to the west and south, just enough to carry the water, so that no preparatory expenditure is requisite. This important advantage will be better appreciated when it is understood that in some less favored places it costs as much as forty dollars an acre to fit the land for irrigation. The only treatment the soil or the crop requires is thorough and frequent tilling. No fertilizing is necessary.

The canal company obtain the water for irrigating by diverting the flow from Salt River below the junction of the Verde by means of dams. Thence it is conveyed to the cultivated tracts by canals and distributed by small ditches, or "laterals." When a farmer wants to conduct water to a certain field he simply lifts the head gate of his ditch. All distributing or lateral canals run upon section or quarter section lines. By this plan stock has the benefit of a living stream of water, while the custom of planting trees along the water way makes these canals serve as ornamental boundaries. Water rights cost about fifteen dollars per acre, and the yearly tax for use after the right has been purchased is one dollar and twenty-five cents per acre. Out of this latter tax the canal companies bear all expenses for repairs. Water for domestic use is obtained from the canals and from artesian wells.



WHAT THE SOIL PRODUCES.

Salt River Valley boasts that its soil produces everything, and a great deal of it. Of some things they produce two or more crops in a year, and when a man produces two crops in a space of time that farmers elsewhere are glad to safely house one, he is a great man. There is Bible authority for it, so let him boast. It is much pleasanter, certainly, to hear a farmer boasting of the fertility of his lands than complaining of their scanty yield.

SOME The following statement taken from an Arizona paper of recent date gives a list of fresh fruits to be had in the valley from **FRUIT.** March to December:

Almonds, December.
 Apples, June to November, inclusive.
 Apricots, May to July, inclusive.
 Blackberries, May to August, inclusive.
 Crab Apples, July to October, inclusive.
 Dates, November to December, inclusive.

Figs, May to October, inclusive.
 Grapes, June to December, inclusive.
 Lemons, November to December, inclusive.
 Nectarines, June to August, inclusive.
 Oranges, November to December, inclusive.
 Peaches, May to September, inclusive.
 Pears (Winter Nellis), June to December, inclusive.
 Plums, June to November, inclusive.
 Pomegranates, August to September, inclusive.
 Strawberries, March to December, inclusive.
 Watermelons, June to December, inclusive.

COST AND PROFIT.

While all this sounds tempting enough, the practical question immediately arises: What money is there in it? This is a rather difficult question to answer conscientiously, because the cost of production differs with different men—some managing better than others—and the market price varies from season to season. The price of land is low, considering its advantages. Unimproved tracts of 20, 40, or 60 acres, with water right that costs \$15 an acre, and frequently with roads or avenues around them, can be had from \$30 to \$75 per acre. The difference in price is due, as a general thing, to the distance the land is located from a town center, or shipping point, and not to the quality of the soil. Improved farm property with water can be bought for \$50 an acre and upwards.

THE MARKET. Fruits raised in the valley are partly consumed at home and partly exported. The home market is good, as there are a great many mining camps and stock ranches, besides the towns and villages, which depend on the Salt River vicinity for their supplies. The surplus is shipped by rail to all parts of the Territory, and is also packed in refrigerator cars and sent East as far as Chicago, where it successfully competes with California fruit. A great deal of fruit is also dried and canned for the local and Eastern trade.

**A
 TWENTY-ACRE
 TRACT.** The following estimate of the cost of purchasing and planting a twenty-acre tract is quoted from a pamphlet issued by a well-informed firm of Tempe, a picturesque and prosperous little town in the Salt River Valley: "Cost of twenty acres of land at, say, \$30 per acre, \$600; preparing twenty



RAISIN PICKING AND DRYING NEAR PHOENIX.



APRICOT ORCHARD NEAR PHOENIX.

acres of fruit land for fruit—plowing, harrowing, ditching, laying off land for planting, digging holes, purchase of trees and vines for tract, planting same, care thereof, and cultivation in a thorough manner for first year, total \$500. Cash required for first payment on land, about \$200; setting out and caring for land first year, say, \$500—making \$700, leaving a balance due of \$400, bearing eight per cent payable in, say, three years. In the above calculation is included about eleven acres of raisin and table grapes, six acres assorted fruits, one-half acre oranges, lemons, limes, etc., one-half acre almonds and nuts, one-half acre assorted tropical fruits, and one and one-half acres reserved for alfalfa, garden patch, and home grounds. The cost of cultivation for second year and onward is from \$5 to \$15 per acre—whether \$5 or more is left entirely to the owner, it having been proven, however, by experience, that the more constant the cultivation the greater the growth and yield per tree, and consequently higher in proportion is the income to the investment each year.”

YIELD AND INCOME.

“In making the estimates,” continues the authority quoted, in his discussion of the probable yield and income per acre, “we have, in each and every instance, taken the lowest figures, desiring rather to under than over rate the returns—for one can easily take in unexpected profits, while he is at times seriously embarrassed by having his income fall short of his expectations.”

CALCULATION BASED UPON TWENTY-ACRE TRACT—SEVENTY-EIGHT BEARING TREES PER ACRE.

APRICOTS.

Third year in orchard, 25 pounds per tree equals 1,950 pounds, at $1\frac{1}{2}$ cents, \$28.25.

Fourth year in orchard, 50 pounds per tree equals 3,900 pounds, at $1\frac{1}{2}$ cents, \$58.50.

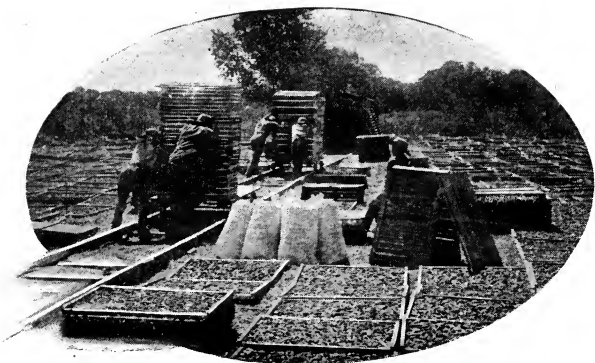
Fifth year in orchard, 80 pounds per tree equals 6,240 pounds, at $1\frac{1}{2}$ cents, \$93.60.

Sixth year in orchard, 125 pounds per tree equals 10,750 pounds, at $1\frac{1}{2}$ cents, \$161.25.

PEACHES.

Third year in orchard, 40 pounds per tree equals 3,120 pounds, at $1\frac{1}{4}$ cents, \$39.

Fourth year in orchard, 75 pounds per tree equals 5,850 pounds, at $1\frac{1}{4}$ cents, \$73.12.



FRUIT PACKING NEAR PHOENIX.

Fifth year in orchard, 130 pounds per tree equals 10,140 pounds, at $1\frac{1}{4}$ cents, \$126.75.

Sixth year in orchard, 200 pounds per tree equals 15,600 pounds, at $1\frac{1}{4}$ cents, \$195.

PEARS.

Third year in orchard, 30 pounds per tree equals 2,340 pounds, at 2 cents, \$46.80.

Fourth year in orchard, 60 pounds per tree equals 4,680 pounds, at 2 cents, \$93.60.

Fifth year in orchard, 100 pounds per tree equals 7,800 pounds, at 2 cents, \$156.

Sixth year in orchard, 150 pounds per tree equals 11,700 pounds, at 2 cents, \$234.

ALMONDS—PAPER SHELL.

Third year in orchard, 5 pounds per tree equals 390 pounds, at 15 cents, \$58.50.

Fourth year in orchard, 10 pounds per tree equals 760 pounds, at 15 cents, \$117.

Fifth year in orchard, 20 pounds per tree equals 1,560 pounds, at 15 cents, \$234.

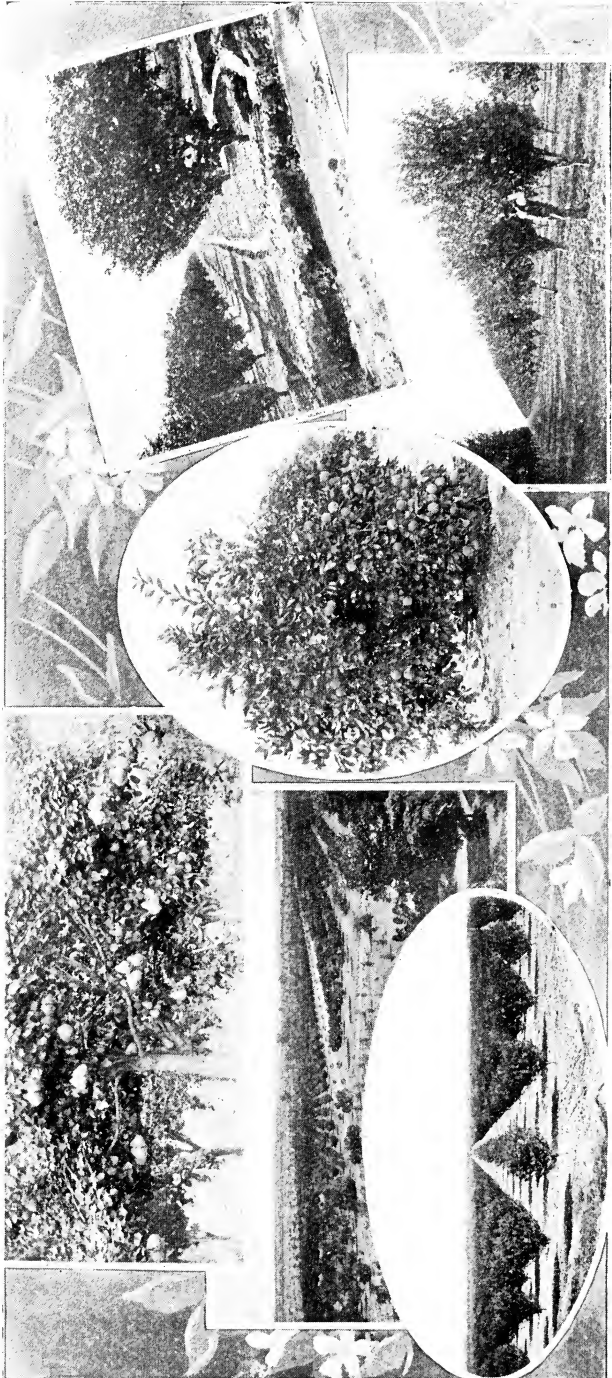
Sixth year in orchard, 30 pounds per tree equals 2,340 pounds, at 15 cents, \$351.10.

In the above calculation net figures only are given, so that no deduction is to be made other than the cost of care and cultivation per acre—the cost of picking and packing being taken into consideration by lowering the yield per acre, as also the price per pound.

Of course grain thrives in such a region

CEREALS. as we have described, but as a rule fruit pays much better. This is a matter that is regulated somewhat by the nature of the land and the farmer. Barley and oats produce from thirty-five to forty-five bushels to the acre, and sell at from sixty cents to ninety-five cents per bushel. These grains are largely grown for hay and are cut in the milk. Alfalfa, however, is the principal hay in use. In addition to barley and oats, wheat and corn are raised, also broom corn, sugar cane and sorghum.

ALFALFA. This forage plant, a favorite in central and southern Arizona, grows all the year round. It is cut for hay from four to six times annually. It produces from one and one-half to two tons per acre each cutting. An average crop is from



ORCHARD SCENES IN SALT RIVER VALLEY.

seven to eight tons per acre, each year. Twenty head of swine or two head of cattle can pasture well on an acre of alfalfa throughout the year. Taking into consideration the lowest market price yet touched by alfalfa hay upon the farm, it will bring \$3 per ton, an acre giving a return of \$21 per annum. Baled, it brings from \$8 to \$12 according to the season. Alfalfa seed sells at seven cents to nine cents per pound. From fifteen to twenty pounds are required to seed one acre.

Professor F. A. Gulley, in one of his reports from the Arizona Agricultural Experiment Station, says, in speaking of alfalfa as found in the Salt River Valley:

"It grows here in the greatest perfection. In the vicinity of Phoenix are some thousands of acres of alfalfa fields, and on these fields, grazing, or feeding on alfalfa hay, thousands of range cattle are now being fattened. Fed nothing but alfalfa, green or cured, a thousand-pound range steer will gain from two to three pounds per day until well fattened, and this gain is equal to that made on good hay and corn in the Mississippi Valley States."

AN EXPERIENCE IN ALFALFA.

Mr. E. G. Frankenberg, of Tempe, in Salt River Valley, writing to the Board of Agriculture of Kansas says: "Since 1889 I have been growing alfalfa, and now have 360 acres * * *

"In this valley the second years' yield is as good as any later, and five cuttings have been made, with about seven tons to the acre. The second or third cutting is used for seed, and not watered, cut with a self-raking reaper, stacked, and threshed with a clover huller. Hay is cut when in full bloom, raked as soon as possible, cured in windrows, and stacked like clover. We never stack in barns, as we have no rains except as before noted, and unless hay is put up too wet there is no trouble from moulding or heating. The hay keeps well in any sized bales, but handles best in 100 pounds, and the baling costs about \$2.25 per ton. The ordinary yield of seed is about 250 pounds to the acre, and the expense of threshing and cleaning is about 2½ cents per pound.

"Hay has been sold in the stack, measured, for from \$3.50 to \$9 per ton, and seed has brought from 6 cents to 15 cents per pound. Alfalfa land is hard to buy, as the man who has it wants to keep it, and I would say it is worth from \$50 to \$100 per acre. In 1892 one of my neighbors had, as gross returns for his hay and pasture, \$27.72 per acre. The next year I cut over 3 tons of hay per acre, sold at an average of \$5 a ton, and rented the pasture after that for six months at \$7.50 per acre."

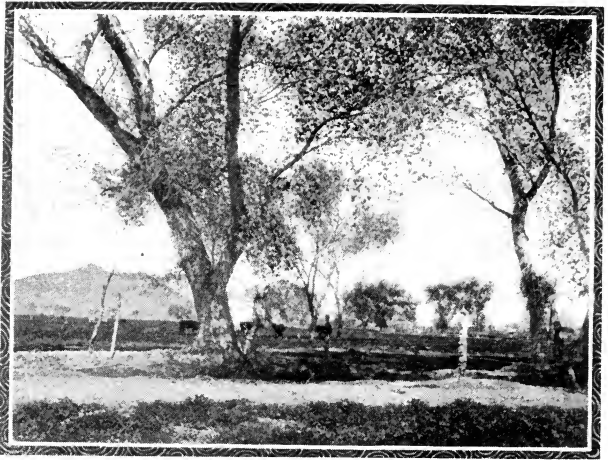
HORNED CATTLE.

PUTTING FAT ON A BEEF FRAME.

In a previous paragraph it was said that the problem of raising cattle profitably, in spite of crowded ranges or "off seasons," had been solved in the valleys of Southern Arizona, and more particularly in Salt River Valley. The solution has been found

in the alfalfa field.

Somewhat has been said of the generous provision nature has made for the immense herds of cattle all



RANCH SCENE NEAR TEMPE.

through the hills and plains of Arizona: as, for instance, the great variety of feed for stock, including under the popular name of "grasses," seed and root, browse and cacti, the mild climate, free from ice and snow and the dreaded blizzard; and finally, exemption from the necessity of storing great quantities of feed for the maintenance of the cattle during inclement seasons. Furthermore, no disease has ever made its appearance among the stock in the Territory. The frame and constitution of cattle bred upon the range is excellent, the only trouble being the over-crowding of ranges, and occasional droughts, which may render the herds unfit for market. Now, each year, the herds are brought in to fatten on the alfalfa fields, before marketing. Sixty days will recruit a poor herd into fine condition, while from three to four months will transform a live "beef frame" into prime merchantable beef.

THE PROFIT OF IT.

As to common range stock that runs among the hills and plains getting its own living in its own wild way, and receiving from the owner no other yearly attention than the branding iron, is sold at two cents a pound and upwards (the prices are rising).

Transfer these steers to an alfalfa field, at a cost of 75 cents to \$1 per head per month, and the gain in weight will be 40 to 50 pounds during each thirty days, and the quality will advance to a value of 4 to 6 cents. In other words a range steer of 1,000 pounds, and valued at from 20 to 25 dollars, at the end of four months pasturage, costing 4 dollars, will weigh 1,200 pounds, and is marketable at a price ranging from 60 to 80 dollars.

HIGH-BRED CATTLE AND THE DAIRY.

In Arizona, stock raising and agriculture are as yet inter-dependent. Unlike some of the great cattle countries of the West, where the farm has invaded grass lands and expelled or exterminated the cattle business, the cattle here have some 60,000 square miles to range over, and are then brought into the agri-

cultural lands to be made fit for the market, to the mutual profit of the farmer and the cattle man. Furthermore, some of the owners of alfalfa land breed registered and high-grade Hereford bulls to turn out on the range. A uniformly colored herd sells better than a motley one, and Hereford, which are essentially grass cattle, bred to the hardy Mexican cow, produce a cross remarkable for its sturdiness and vigor, as well as for the markings of its blooded sire.

In addition to the Herefords, some ranchmen have imported Durham, Holstein and Galloway stock, and by annual culling the herds have greatly improved. Indeed, several years ago quite an interest was taken in the rearing of high-bred cattle, and, although the universal business depression affected the enterprise temporarily, it has recently been resumed with considerable enthusiasm, especially by dairymen.

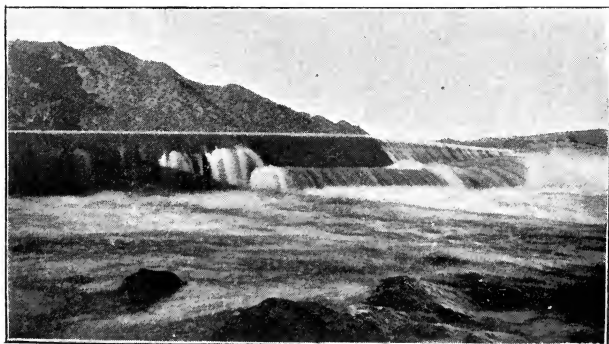
The dairy business is generally conducted in connection with the ice-making and cold storage plant. There is this to be said about it also, that the cows yield most plentifully in the summer months when, because of the hot weather and long distance to large cities, the risk and expense of shipment is greatest and the profits proportionately small.

GROWING HOGS.

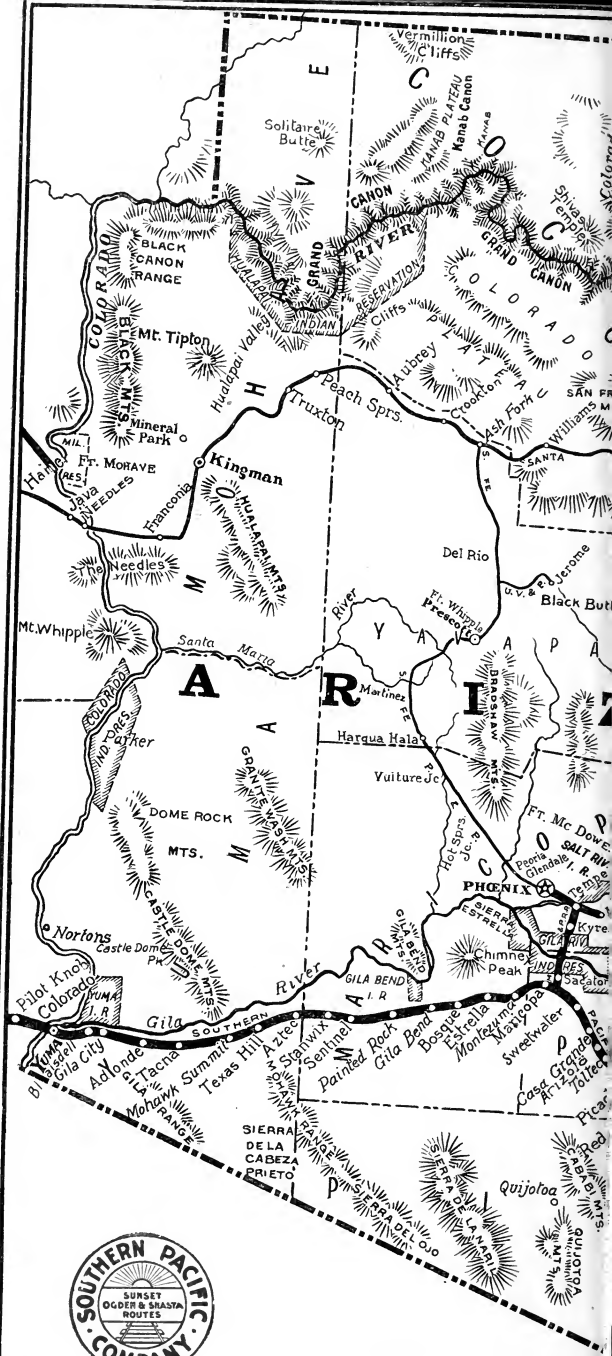
This industry has met with such success that it is rapidly increasing. The principal breeds are Poland-China and Berkshire, raised from stock originally brought from the Eastern States and California. Most breeders prefer the black hog, as best suited to the climate. There has been no sickness among swine in the country, probably because they are almost altogether raised on alfalfa and not pen fed. Young pigs, especially, thrive on alfalfa. For fattening matured stock for the market, barley, wheat and sorghum are frequently used. The increasing number of swine has built up a good trade with dealers in Mexico, Texas and California. As much as \$7,000 worth of hogs was raised on a half section of land last year, besides over one hundred head of cattle.

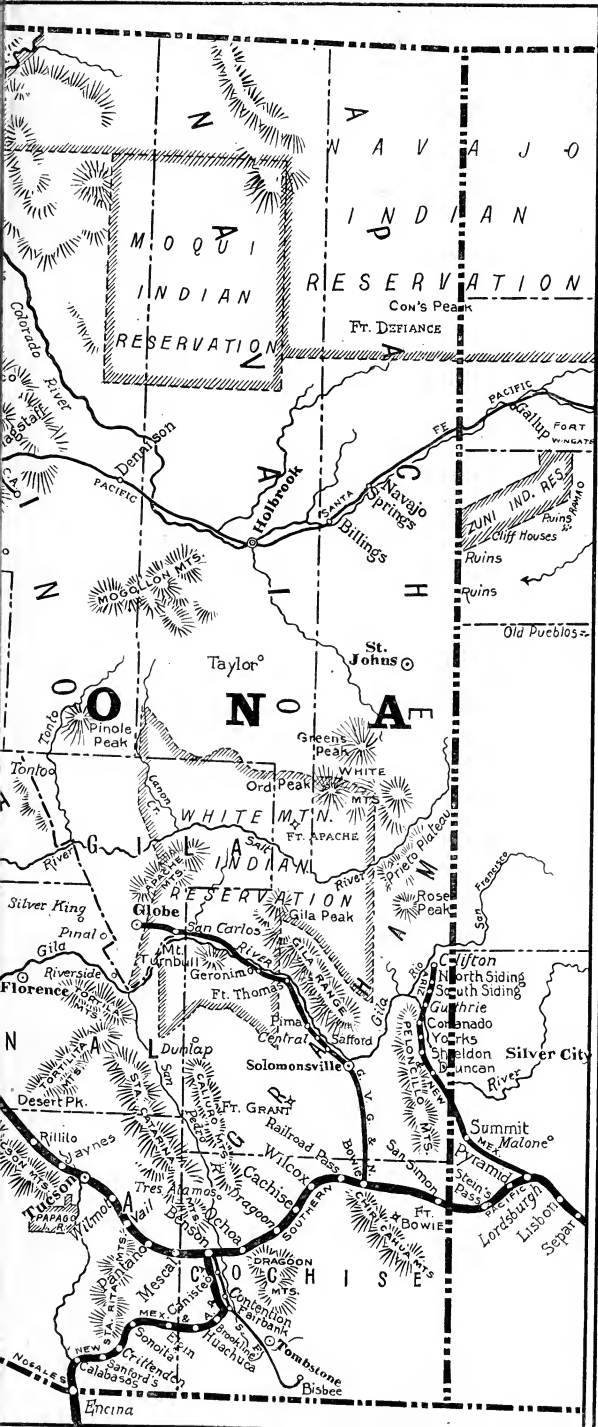
BEE RANCHES.

There are so many shining hours in Arizona the busy little bee is kept very busy indeed. In Salt River Valley there are about 4,000 colonies of bees. The sources of the honey crop are wild flowers, which are most abundant in the spring and fall, the mesquite



FALLS OF THE ARIZONA CANAL.







WASHINGTON STREET, PHOENIX.

trees and the ever serviceable alfalfa plant. The honey made from the two latter is of excellent quality. The product is shipped in car lots to Eastern markets and fair prices are obtained. The traffic is nearly altogether in extracted honey, put up in five-gallon cans, two in a case. Comb honey is put up in sufficient quantities to supply the local trade.

THE TOWNS OF SALT RIVER VALLEY.

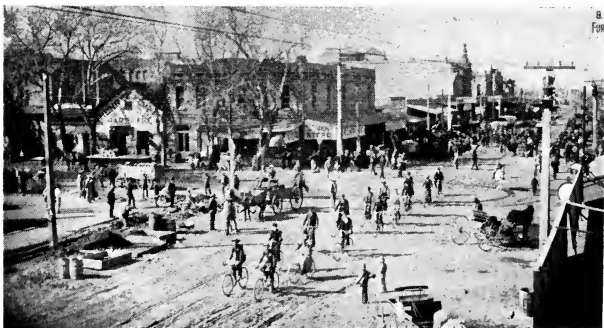
PHOENIX,
WHAT
IT
LOOKS
LIKE.

It is an attractive city! Maybe there are hard-headed, so-called practical men who do not care to hear about Phoenix's comeliness, preferring to hear about its resources. But the beauty of Phoenix is one of its resources, and is worth hearing about. Perhaps its fairness is all the more noticeable and pleasing because of the fact that one travels over dusty miles of monotonous plains (deserts, not yet

painted green by that great artist of Arizona, Water) to get to it.

There are plenty of trees about the town, the name of any one of which is a romance—the olive, the pepper, the cypress, pomegranate and fig.

Then there are the flowers, only the word does not convey its Arizona meaning to an Eastern mind, accustomed



STREET SCENE, PHOENIX.

to potted plants, or carefully nourished gardens. Here is a very riot of flowers growing in season and out of season, and all the time out of reason. You will see hedges of geraniums, and adventurous fuchsias and heliotropes that will climb as high as they are permitted, and acres of beautiful lilies.

All of the dwellings around Phoenix are picturesque; those that were not made so by the builder have been made so by the shrubbery. The inhabitants have mostly come from the older civilization of the East and South, and are refined and cultivated, so that there is no lack of those graces which mean so much to the stranger in a strange land.

ITS POPULATION AND BUSINESS.

Phoenix is the capital of Arizona Territory and the seat of Maricopa County. Its population is about 18,000, although the presence of a large transient population, composed of tourists, health seekers, farmers, miners and cattlemen from all parts of the Territory, give the streets the busy aspect of a town twice its size.



HOTEL ADAMS, PHOENIX.

It is well furnished with all the modern appliances of comfort, including gas-works, ice factories and electric light plants, seven miles of street railway, four of which are electric, and a telephone exchange; there is also a sewerage system, waterworks and a fire department. There are rows of substantial business blocks, a theater and several public halls. A number of handsome State and county buildings are already erected, including the Territorial Insane Asylum, costing \$100,000, and Territorial capitol of noble proportions and built of enduring material; a fitting place in which to make the laws that shall govern a people whose financial strides accent their millions by scores. A \$200,000 hotel has just been opened at Phoenix. It is modern in every way—electric lights, elevators, baths, etc.,—and luxurious throughout. There are several other well-equipped hotels there, any one of which ranks, in point of service and accommodations, with the best caravansaries of the East.

When it is remembered that Phoenix is not only the capital of the Territory but the trade center of Maricopa County, embracing an area of 9,354 square miles, a great deal of which is productive, it will be readily understood that there is considerable business done in the town. As an index of its rapid commercial growth, the assessment roll of 1884 shows the value of land and improvements to have been \$1,114,463, while in 1898 the official figures are nearly \$9,000,000.

SCHOOLS, CHURCHES AND SOCIETIES.

Phoenix has a graded school system consisting of a high school and various ward schools. There are also a number of private schools. The Territorial Normal School is at Tempe.

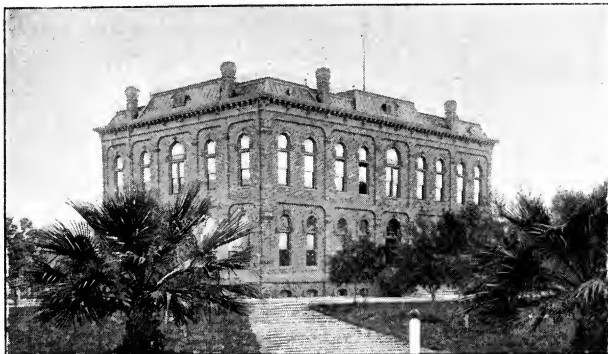
Nearly all religious denominations have an organization in Phoenix, while the majority have handsome church edifices, the new Methodist Church taking rank as one of the finest buildings on the Coast. The Young Men's Christian Association has a free reading-room and gymnasium in connection with its assembly rooms. All of the principal fraternities are represented by lodges, and own separate halls.

TEMPE. The town of Tempe ranks next to Phoenix in the valley. It is picturesquely situated at the foot of a lofty butte on the south bank of the river, and is the headquarters of the Consolidated Canal Company. Its population is 2,000. It supports a flouring mill, fruit-drying establishment, ice factory and packing-house. It has two hotels, two banks, and several fine business houses built of brick and brown-stone, which latter is obtained from a quarry in the neighborhood.

MESA CITY Is situated on a plateau near the eastern end of the county. The vicinity is especially favorable to vines and fruit. The population is about 2,000. There are two trains daily to Phoenix and Tempe.



FLEMING BLOCK, PHOENIX.



CITY HALL, PHOENIX.

GILA BEND

Is fifty-five miles southwest of Phoenix, and is the center of a fertile farming district that extends for miles along the Gila River. While it has not yet the elaborate irrigating system that surrounds Tempe and Phoenix, its alluvial soil is similar to that of the Valley of the Salt, and it is only a question of time when canals will place it in the same prosperous category. Gila Bend is also a promising station on the Southern Pacific Company's Sunset line.

MARICOPA.

To the eastward of Gila Bend is Maricopa, an important station of the Southern Pacific Company, and the junction of the Maricopa and Phoenix Railroad with the Southern Pacific Company's Sunset line. From this station there is railway connection with Tempe, Phoenix, and other points of general supply and exchange in the Valley.

THE TESTIMONY OF A FEW.

From the "Phoenix Daily Herald" of January 26th, we take the following "experiences" at random.

**A
BEGINNER.**

Mr. Frank Baum, a recent settler in Salt Valley, in a letter to a friend dated August 19th, published in the Sidell (Ill.) "Reporter," says: "I want you to call and see me on your way out, or back. You will never regret it. I will take you around and show you our Valley. I can show you 1,000,000 acres of the finest valley land on earth. * * * Mr. Wilcox, who lives near me, has sold \$400 worth of fruit and will sell that much more this fall off of two acres."

**A
FLYER
IN
PEANUTS.**

Mr. Winfield Scott, Chaplain on the retired list of the United States Army, writing from Phoenix, states that, desiring to pay the expenses of an orange grove while the young trees were growing, it occurred to him to plant peanuts between the rows. He did so, and with such success that "the present year I extended my planting," he says, "and have obtained equally good results. My crop will yield me about 250 sacks of large, first-class nuts of superior quality. * * * As near as I can estimate, they will pay a revenue of at least \$75 per acre."

A MISCELLANEOUS FARM.

Mr. M. Baugh, we learn from another source, farmed seventy-five acres under the Arizona Canal Company, during the past season. "Sixty acres of which," he says, "I put in barley, and the balance, fifteen

acres, in alfalfa. From this, since the first of last May, I have sold \$50 worth of chickens, \$250 worth of eggs, \$2,300 worth of hogs, \$50 worth of turkeys, and \$400 worth of honey, making a gross income from seventy-five acres of \$3,050. In addition to this, I not only have the original stock with which I started, but they have increased in value at least \$500, so that really the seventy-five acres have produced \$3,550."

AN ORANGE ORCHARD.

Mr. W. D. Fulwiler, in a pamphlet issued by the Arizona Improvement Company of Phoenix, says, in regard to oranges: "* * * as you are aware, we have 85 acres which will come into bearing next year, but have only four or five acres now in bearing. We began selling

the product to the local dealers here at a net price to the company of \$4 per box. I had Mr. Tait count the oranges on some of the trees from which he was certain no oranges had been picked, and found that they ran from 146 to 264 per tree, taking the average at a box and a half per tree, at \$4 per box equals \$6 per tree, and at 69 trees per acre gives \$414 per acre, exclusive of boxes and dealers' profits. The yield will increase from year to year until, at full bearing, they will produce from 6 to 8 boxes per tree. The trees in bearing are now five years old." It should be said that \$4 a box is a rather unusual price, \$2 is nearer the average.

SOME GENERAL INFORMATION.

EDUCATION IN ARIZONA.

The following statistics are taken from the recent report of Hon. Thos. Dalton, Superintendent of Public Instruction:

Number of teachers employed in 1896, 324; number of school districts, 223; number of boys enrolled, 6,789;

number of girls enrolled, 6,100; total enrollment, 12,889; number of census children, 16,936; average length of school term, 6.34 months; total expenditure in all sources, \$214,450; valuation of school property, \$429,000. Several new school buildings are now under construction, and in the last two years twenty new schools have been built at a cost of \$35,000.

CANAIGRE.

Professor W. Eitner, of Vienna, an authority on all matters pertaining to the manufacture of leather, recommends the use of this root in tanning on account of its quickness, its filling qualities, and its beautiful colors. He considers it especially adapted for tanning uppers, fine saddlery, and fancy leathers, either alone or in combination with other materials.

The canaigre root is found growing wild in Arizona and has long been used by the Mexicans as a tanning material and as a medicine, but only in recent years has it attracted attention as an article of commerce. An analysis



A SHADY DRIVE, PHOENIX.

by Mr. Vaelcker, of Galveston, gives 23.16 per cent of tannic acid. Canaigre has been gathered in its wild state and shipped abroad by various individuals and companies until the supply near lines of transportation became exhausted and it no longer paid to gather it.

The Arizona Agricultural Experiment Station, a department of the University at Tucson, has investigated its habits with the possibility of cultivating it, and has issued an exhaustive bulletin on the subject. Mr. C. B. Allaire in an article in the "Irrigation Age," of November, 1894 says: "Canaigre makes an excellent substitute for gambier, having all the desirable qualities that it has, and others that it does not supply, and it is as a substitute for it and as a modifier of the tannic barks that will justify a liberal demand for it, when its merits are more generally understood.

"As a crop on irrigated lands it has advantages that make it very valuable in the economy of agriculture, not so much on account of any enormous profits that it will yield, as from the fact that with a limited water and labor supply, the tillable acreage can be nearly doubled."

The Pima Indians of Arizona manu-

COTTON. factured fabrics from cotton raised in these valleys long before European settlers cultivated it in Virginia or the Mississippi Valley. In recent years the plant has been grown in Salt River Valley but not in sufficient quantities to create a market.

SUGAR CANE. The sugar cane thrives in Southern Arizona, yielding 1,000 pounds of sugar to the acre. The product is generally turned into syrup which is of good quality and sells at the usual market price.

A COMPARISON OF ORANGES.

From the "Riverside (Cal.) Press:" "Q. T. Brown returned from the Gila Bend country, Arizona, last night. He brought back with him a box of navel oranges, grown about eleven miles from Phoenix, in Salt River Valley. These oranges are magnificent specimens—good size, rich color, very sweet and finely flavored. They ripen in November, a couple of months earlier than here in Riverside. It has been fully demonstrated that fine oranges can be raised in Arizona."

PIMA COUNTY.

ITS MINES.

Extending along the southern border, with the Mexican State of Sonora for a neighbor, Pima County covers an area of 9,500 square miles. It is the oldest mining region in the United States. Who first discovered silver in Pima County, and when, no one knows. The Jesuit priests found evidences of the mines having been worked when they first began operations in this region, as early as the seventeenth century. The world-famed *bolas de plata* discoveries of 1736-41 were in the Arizona mountain range, near the Sonoran border of Pima



COURTHOUSE, TUCSON.

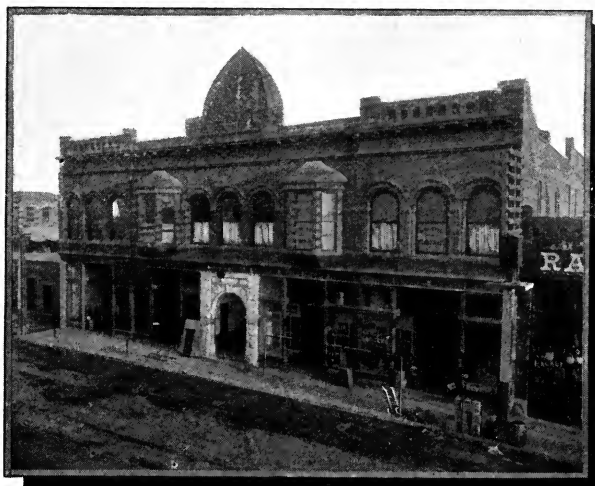
County; balls and plates of native silver were abundantly found; one of these, by weight, in friendly relation to a ton avoirdupois. These were claimed by the Government as curios (*criadero de plata*), and thereupon the miners ceased to find them. Bolas are yet found—not alone *de plata*, but *de oro* and *de dobra* as well.

GOVERNMENT LANDS.

There are 6,714,000 acres of land in Pima County, of which 1,058,210 have been surveyed, and only 157,560 acres of this amount have been filed upon in the Land Office; 256,630 acres consist of Indian reservation and private land grants. The remaining 5,241,600 acres are unsurveyed. Here is a large opportunity for colonization and irrigation enterprises.

TUCSON. Perhaps it is not generally known that the "ancient and honorable pueblo of Tucson" is the oldest town in the

United States, despite the claims of St. Augustine, as set forth in our youthful geographies. The Arizona "Citizen," in its New Year's number, calls attention to this fact, and how Friar Marcos Ziza, who accompanied General Coronado when he founded the town in 1540, chronicled the event and its date on vellum in a fair clerkly hand. We wonder what Father Ziza would say if he saw his honorable pueblo at the present day, its adobe walls, or what is left of them, shrinking in the glare of the electric light, and crumbling to pieces with the mighty jar of railroad trains. Being a decorous man and a scholar he would probably veil his remarks in Latin.



A. O. U. W. BUILDING, TUCSON.

Tucson has a population of about 10,000. It is the county-seat, and is also the site of the Territorial University, whose excellent work and handsome buildings add to the intellectual and architectural reputation of the city. It is the business center of a large mining, cattle and agricultural region.

HYGIENE. Tucson's elevation (2,390 feet), and freedom from fogs and miasmatic exhalations, invite an invalid world to come and be healed.

Out-door life is an essential factor in the cure of many forms of disease; especially so, of those fastened by modern hyper-refinement. The patient must leave the crest of artificial living's rainbow, and get down to mother earth; this he can safely do, in Pima County, Arizona. Let his days (365 of them in the year) be spent in judicious equitation—following the herds, or following his brooding fancies; and the restful nights, in view of the stars.

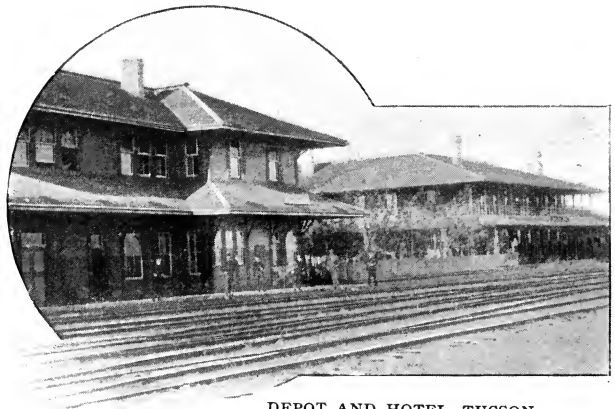
FLOCKS AND HERDS.

Stock raising reaches large proportions in this subdivision of Arizona; the records for the year ending June, 1899, show the shipment of twenty-two thousand head, to markets east and west.

COCHISE COUNTY.

Mr. Hamilton, in his excellent work on the resources of Arizona, says: "This county occupies the extreme southeastern corner of the Territory.

Its area is 5,925 square miles, and its topography is made up of lofty mountains, wide valleys and grassy plains. The Chiricahua Range crosses the eastern part of the county, while the Huachuca, the Whetstone, the Mule, and the Dragoon Ranges run through it on the west. The mountains are well timbered, while the valleys and foothills are covered with fine grasses. The San Pedro is the only running stream in Cochise. It flows through the county from the line of Sonora to the boundary of Pinal. Recent discoveries in the Dragoon



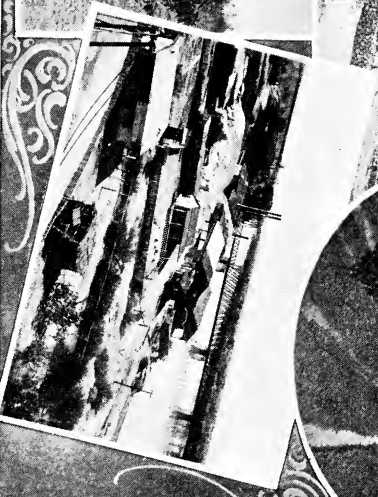
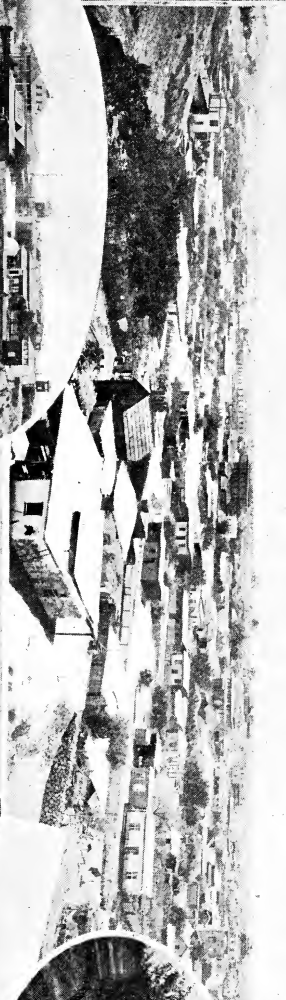
DEPOT AND HOTEL, TUCSON.

range and elsewhere of gold, silver and copper have enriched thousands. The wonderful mineral wealth of its mountains and mesas have given Cochise a national reputation, while the nutritious character of its grasses have drawn within its borders thousands of cattle. One of the smallest, it is one of the richest counties in the Territory, and there are few regions that can show so many varied natural resources. Tombstone is its principal town."

GILA AND GRAHAM COUNTIES.

These are now traversed by the Gila Valley, Globe and Northern Railway from its initial point at Bowie, on the Southern Pacific—bringing wide grazing and agricultural districts into contact with markets—and also opening valuable coal deposits to commercial uses, and giving development to scores of rich de-

posits of the precious metals,—gold, silver and copper; of the latter, the output at Globe is phenomenal.



YUMA AND SURROUNDINGS.

PINAL COUNTY

Is a country of open, grassy plains dotted with clumps of barren mountains. The Gila flows through it from east to west, and its southeastern end is watered by the San Pedro. Its total area is 5,210 square miles. It possesses large and rich tracts of agricultural land, excellent grazing grounds, and some of the most valuable mines yet discovered in Arizona. Besides its ledges of gold, silver and copper, large deposits of coal have been found within its border, which will, no doubt, yet prove valuable. Florence, the principal town of Pinal, stands in the valley of the Gila and about half a mile from the stream. It is twenty-five miles northeast of Casa Grande station on the Southern Pacific and eighty miles north of Tucson. The place has a delightful situation, and, with its pleasant homes, surrounded by trees and shrubbery, its pure water and healthy climate, is one of the most attractive spots in the Territory.



ALMOND ORCHARD.

YUMA COUNTY

Comprises the southwestern portion of Arizona. The Gila River flows through the county for nearly one hundred miles, forming in its course a rich and fertile valley. The Colorado washes its western boundary and has large bodies of arable land. Besides the Southern Pacific Company's railroad, Yuma has the advantage of a navigable stream which must ultimately develop and bring into prominence its great natural resources. The town of Yuma is the county-seat, situated on the Colorado, just below the junction of the Gila.

A SUGGESTION TO TOURISTS.

Arizona is rich in natural scenery of great variety, beautiful, grand weird, grotesque, and awe-inspiring; it is rich in the relics of American pioneers, Spanish adventurers, Aztecs and races so ancient that a few handfuls of dust is all that is left of them; it is rich in the singular colonies of queer people, who still cherish the Sacred Fire and patiently await the coming of Montezuma, and in the remnants of tribes, once savage marauders but now reduced to the necessity of working for a living on a government reservation.



AN ARIZONA HOME.
A QUIET WORD TO INVALIDS.

It is not the least part of an invalid's suffering that he has to submit to being told by every one he meets just what will cure him and where he ought to go to get well. Now it is not imagined that an invalid has waded or will wade through all the pages of this pamphlet addressed to the annoyingly healthy home-seeker, unless, indeed, he may be stranded in some remote railway station, and altogether out of literature. But, if the gentle invalid *has* read the foregoing pages, we would recall to his mind the statistics that we have quoted showing Arizona to have the driest climate in the United States, as well as the most equable. It has been humorously said of Salt River Valley that everything grows there, even lungs.

The notion seems to prevail with a certain class of good people that all an invalid requires is climate and "roughing it." As though sitting on the desert like a Yuma squaw, or an Egyptian sphinx, ought to make any sick person well, although a well person would find such an existence altogether unendurable. But in Arizona the people know that a sick person away from home requires unusual comforts, pleasant surroundings, and some rational amusements. Therefore there are places, notably such towns as Tucson and Phoenix, where an exiled invalid may find other requisites for his condition than climate merely.



CULTIVATING PEACH ORCHARD, SALT RIVER VALLEY.

A NEW HOME—HOW TO REACH AND MAKE IT.

The country of Arizona, its resources and possibilities, having been faithfully described—"extenuating nothing, setting nothing down in malice"—it remains to say how you can best reach it; at what cost of time and money, and what, under ordinary circumstances, you will have to overcome before arriving at a period when you may claim to be self-supporting.

The prime condition is *manly vigor*; without that, stay where you are, stay anywhere, and make it a feature of your religion to give Arizona a wide berth—neither it nor its people will make you welcome. But if you are industrious, frugal and temperate, and added to this trinity of virtues have what the New Englanders call "faculty" (another name for horse sense), you will find yourself "to the manor born."

Wherever you may reside, to the northward or northeasterly from New Orleans, you will consult your best interests by purchasing a through ticket to your destination via that city, because New Orleans is the Eastern



MAMMOTH MINE.

terminal of the Southern Pacific's lines; and there you can take a car that will land you at your chosen home.

The cost for transportation will be about as follows, and to this must be added the charge for sleeping car, which for a double berth accommodating two persons will be from four to six dollars, according to distance.

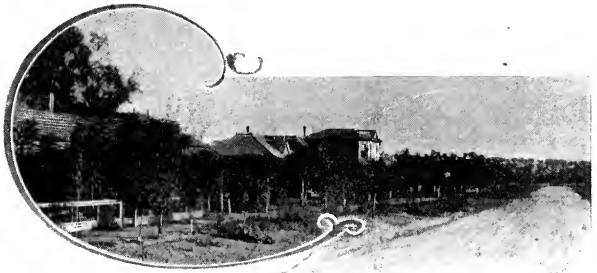
TO PHOENIX, ARIZONA, VIA NEW ORLEANS AND SOUTHERN PACIFIC COMPANY'S LINES.

FROM	SECOND CLASS.
St. Louis	\$49 60
Chicago	54 60
Detroit	59 60
Indianapolis	56 10
Cincinnati	58 60
Pittsburg	62 10
Buffalo	63 10
Boston	69 85
New York	69 85
Philadelphia	69 35
Baltimore	67 10

If you have effects that you wish to retain, beyond the weight of 150 pounds to each passenger, which will be carried free as baggage, pack securely and ship by freight

over the same lines recommended to you for your own routing, understanding that the freight will probably reach you in ten days or two weeks after your own arrival. Some prudent persons, who want their effects as soon as they arrive, ship them in advance. As to season for starting, you have learned that in a climate like Arizona, and on land that is irrigated, you practically make your own season; there is no day in the year that forbids garden-making or steps leading to home comforts. If you are not wealthy, you had best select your home in the vicinity of others, so as to have neighborly society, and on irrigated lands. The wealthy man can increase his wealth by locating desert government land, bringing from some source that is available (if there be such) sufficient water to irrigate it permanently; and under the laws of the United States he and each member of his family can obtain 360 acres of this desert reclaimed land on payment to the Government of \$1.25 per acre. Such lands, in desirable situations, can yet be had.

But for the man who has but little money, and wants to put himself on an independent basis as soon as possible,



AN AVENUE OF HOMES.

the best way will be to purchase *land with water right*, and you will find many advantages in being near to others similarly situated. You can be mutually helpful. Obtain twenty or forty acres—a family can make a good living on twenty acres, since you must not forget that one acre of irrigated land in Arizona is equal to four or more acres in any average country that has a frozen, snowy winter.

Your land will cost from \$25 to \$40 an acre with its right to water, and can be paid for by reasonable installments after the first payment of twenty or twenty-five per cent. When the land is purchased, you will obtain a water *use* right for the year which will cost about \$1.25 per acre. Then prepare a garden, and within thirty days you will begin to eat of the fruit of your industry. Three acres or more of alfalfa, as food for your team, your cow, and half a dozen swine and two or three dozen chickens.

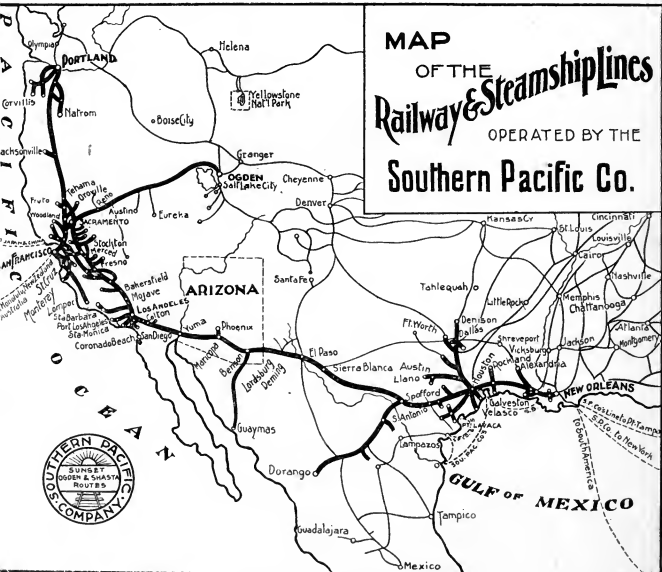
Your stock will cost you less than the same would in the East. You will want a pair of horses or mules and at least one good cow. The harness will be a trifle dearer than you have been accustomed to, and the farm implements, wagon, plow, etc., at least as dear as in the East, with added freight. Your cow, poultry, swine and garden will do much toward feeding you, and a crop of strawberries can be soon placed in the market to obtain flour.

meat, sugar, coffee, tea and other necessities and luxuries. Strawberries are easily raised and pay largely for months. Nothing has been said of your house. At slight expense for carpenter work, doing much yourself, you can put up a cheap balloon frame house to shelter you and yours from sun and possible rain that will come *only* during the autumn months. Lumber is not much dearer than you are accustomed to, and the climate respects a cloth and paper house. The balloon frame is safe, for there are no blizzards or cyclones in Arizona. Your stock will need no shelter, but when affluence comes to you your well-housed stock can share it.

Wages can be earned by those desiring such an aid to early efforts, and many new settlers use this method to assist the means enumerated by me. If you are industrious and frugal, very soon your land will be paid for and additional purchases made. Schools and churches and cultivated society will be easily accessible to you. It may be supposed you understand that the irrigated lands are none of them timbered. Before water was artificially brought to them, they were level plains covered by a scanty growth of bushes with intermingled cacti and grass, usually much cacti and little grass. You will start lines of poplars along your water ditches to provide shade and fuel.

Many settlers refrain from house-building when they arrive after the autumn rains, living for several months in a tent, and building the house at their leisure. The summers are hot—June, July and August,—but, however hot, you can work safely out in the open field, for sunstroke is unknown; and the nights induce refreshing sleep, and good health is the rule—sickness the rare exception.

There are no epidemics of bilious fevers, or dysentery, or ague. Inflammatory diseases and typhoid fevers are rarely heard of. Your doctor's bills will be less than your



butcher's. If you have any inherited taint of lung disease, expect a cure.

If such conditions as I have described will suit you, you had best come and enjoy them. You will scarcely find a discontented family in a day's search in agricultural Arizona. It is a place where, to the industrious, a living is certain, a competence attainable, and independent wealth possible.

WHITELAW REID ON ARIZONA.

The publishers of this little volume esteem it a triumph to be able to establish its credibility in a general way with the testimony of so distinguished a personage as the Hon. Whitelaw Reid, editor of the New York "Tribune."

Mr. Reid is not only a great journalist and statesman, but a widely traveled savant, and more or less acquainted with every known country. His opinions on any subject have weight, because coming from one who would not descend claptrap. His impartial judgment of Arizona will be read with more than passing interest.

So many questions are asked about Arizona as a place for winter residence, and there appears to be such a dearth of precise information among many who are vitally interested, that it seems almost a public duty to set down, in the simplest form, a few facts of personal observation.

WEATHER. During a five months' residence in Southern Arizona in winter, there was but one day when the weather made it actually unpleasant for me to take exercise in the open air at some time or other during the day. Of course, there were a good many days which a weather observer would describe as "cloudy," and some that were "showery;" but during these five months there were only four days when we did not have brilliant sunshine at some time during the day. Even more than Egypt, anywhere north of Luxor, Arizona is the land of sunshine. As to details:

TEMPERATURE. The Government reports show a mean temperature for fourteen years at the present Territorial capital of $57\frac{1}{2}$ degrees in November, 53 degrees in December, 49 degrees in January, 54 degrees in February, 61 degrees in March, and 66 degrees in April. The same reports show the highest and lowest temperatures, averaged for eight years, at the same place, as follows: For November, $78\frac{1}{2}$ and 42 degrees; December, $73\frac{1}{2}$ and $36\frac{1}{2}$ degrees; January, $65\frac{1}{2}$ and 32 degrees; February, $71\frac{1}{2}$ and $35\frac{1}{2}$ degrees; March, $81\frac{1}{2}$ and 41 degrees; and April, $86\frac{1}{2}$ and 46 degrees. The nights throughout the winters are apt to be cool enough for open wood fires and for blankets. Half the time an overcoat is not needed during the day, but it is never prudent for a stranger to be without one at hand.

AIR The atmosphere is singularly clear, tonic and dry. I have never seen it clearer anywhere in the world. It seems to have about the same bracing and exhilarating qualities as the air of the Great Sahara in Northern Africa, or of the deserts about Mount Sinai, in Arabia Petræa. It is much drier

than in the parts of Morocco, Algiers or Tunis usually visited, and drier than any part of the Valley of the Nile north of the First Cataract. It seems to me about the same in quality as the air on the Nile between Assouan and Wady-Halfa, but somewhat cooler.

ACTUAL HUMIDITY.

This is extremely slight everywhere in Arizona, as compared with any Eastern climate in the United States. The air is driest on the high mesas, remote from snow-clad mountains or forests, and in the desert valleys, where no considerable irrigation has been begun. Wherever irrigation is carried on, on a large scale, the percentage of humidity in the atmosphere must be somewhat increased, although to an Eastern visitor it is scarcely perceptible. The same Government observations already cited show relative humidity, at Phoenix or Tucson, averaged for weeks, from morning and evening readings, as less than half the usual humidity on dry days in New York. General Greely, in a publication from the Weather Bureau, gave the normal weight of aqueous vapor in the Arizona air at from $1\frac{1}{2}$ to 4 grains per cubic foot.

RAIN

Showers, and indeed heavy rains, are liable to occur in every month of the year; but the actual number of rains seem to an Eastern visitor strangely small. The average rainfall in Southern Arizona, as shown by the Government observations, is but $8\frac{1}{2}$ inches per year.

ALTITUDES.

It is a striking advantage offered by Arizona that, with the same general conditions as to temperature and dryness of air, the physician is able to select nearly any altitude he may desire. Thus, asthmatic sufferers can find almost the sea-level at Yuma, or at altitude of only a thousand feet at Phoenix, or of only 2,400 at Tucson. Others, who find no objection to greater elevations, can choose between Prescott and Fort Whipple, 5,400; Flagstaff, 6,800; the Sulphur Spring Valley, or Fort Grant, 4,200; Fort Huachuca, 4,800, or Oracle, about 4,000.

IS IT A PLACE FIT TO LIVE IN?

This depends on what one expects in a huge, sparsely settled Territory of mountains and deserts. The man who looks for either the beauty or the seductive excitement of Monte Carlo will not find it. As little will he find the historic remains of the cosmopolitan attractions of Egypt, nor could he reasonably expect the amusements and luxuries of our own Eastern cities. The people of Arizona are still chiefly busy in the pioneer work of subduing it to the residence and uses of civilized man. But it has two transcontinental lines of railway, with numerous feeders; it has fast mails and rival telegraph lines, and is throbbing with the intense life of the splendid West. The two principal towns in the southern portion chiefly sought for their climatic advantages are Phoenix and Tucson. Each of them has ten thousand inhabitants or more. They have the electric light, telephones, trolley-cars, plenty of hotels, banks, book stores, good schools, churches, an occasional theatrical performance, sometimes a lecture or a circus, often a horse race, and, in the spring, a thoroughly curious and interesting "fiesta." For the rest, people must take their

amusements with them. Good horses are abundant and cheap, and there are plenty of cowboys—the genuine article—to show what horses can do. The driving, for fifteen or twenty miles in almost any direction from Phoenix, is nearly always easy. The roads are apt to be dusty; but there is one well-sprinkled drive of six or eight miles; and, since the winds are quite regular in their direction, it is rarely difficult to choose a route on which the dust will be largely carried away from you. The unbroken desert itself is often as easy to drive over as an Eastern highway, and the whole valley is a paradise for bicyclers or equestrians.

CAN ONE LIVE COMFORTABLY?

That, again, depends on what you expect. You cannot have the luxuries of our New York houses out there, unless you build one; or the variety of our New York markets, unless you charter a refrigerator car. But there are hotels with almost as much frontage as the Waldorf; and, like everything else in the Territory, excepting the mountains and the deserts, they are new. There are boarding-houses of more kinds than one; and brick cottages of eight or ten rooms can occasionally be rented. Better than any of



HERDS AND HERDERS.

them, for the man with the energy and the pluck to take it, is a tent on the desert; and he who knows how to "camp out" with comfort through September in the Adirondacks can camp out in Arizona through the winter. As to food, there is plenty, and it is good—if you can get it well cooked. The alfalfa fields of the Salt River Valley are the fattening grounds for the great cattle ranges of the Territory. From there the markets of Los Angeles, and even of Denver, are largely supplied. Good beef, mutton and poultry are plenty and cheap. Quails, ducks and venison from the vicinity can also be had. Vegetables and fruits are abundant in their season, and sometimes the season is a long one. It is the one country I have lived in where strawberries ripen in the open air ten months in the year. I have had them on my table, fresh picked from the open gardens, at Christmas.

IS IT A LAWLESS COUNTRY?

The man who goes to any considerable Arizona town with the ideas of the Southwest derived from novels, or from "The Arizona Kicker," will be greatly mystified. He will find as many churches as in towns of corresponding size in Pennsylvania or Ohio; and probably more schoolhouses. He will find plenty of liquor shops, too, and gambling-houses, and dance-houses, and yet he will see little disorder unless he hunts late at night for it, and he

will be apt to find—as at Phoenix—a community of ten thousand people requiring in the daytime only one policeman, and hardly requiring him. During my winter there I did not see a single disturbance on the streets, or half a dozen drunken men all told. Mining men and an occasional cowboy certainly had quarrels sometimes, in the disorderly quarters at night; and there were stories of the use of the knife among Mexicans; but the visitor who went about his own business had as little trouble as on Broadway or Chestnut Street. The Pima and Maricopa Indians, who are encountered everywhere, have been friendly with the whites for generations, and there isn't an Apache within some hundreds of miles.

WHICH TOWN IS THE BEST?

Primarily that is a question for the physician, if there is a physician in the case; if not, try them all. If a mountain region, considerable altitude, and a comparatively low temperature are desired, Prescott is in a picturesque region near a great min-

ing district, and has the social advantage of an army post, Whipple Barracks. Flagstaff is still higher; is in a region of dense pine forests, and is within a hard day's journey of one of the wonders of the world, the Colorado Canyon. Oracle is a pretty mountain nook, embowered in splendid live oaks, like those of California, and is also near an important mining district. If lower altitude and a distinctly semi-tropical climate are desired, the three places most likely to be considered are Yuma, Tucson and Phoenix. The first is near the sea-level; is the warmest and probably the driest of the three; has the least population, and the smallest provision for visitors. Tucson is the oldest town in the Territory, and, after Santa Fe, perhaps the oldest in the Southwest. Its adobe houses give it a Mexican look, and are thoroughly comfortable. Its newer houses are of a handsome building stone, found in the vicinity. The Territorial University is here, and it was formerly the capital. Its elevation being more than double that of Phoenix, it is somewhat cooler, and, as there is next to no irrigation near it, the air is a little drier. Phoenix is in the center of the greatest irrigation in the Territory. The country for miles around smiles with green fields, covered with almost countless herds of cattle, and it is everywhere shut in by low mountains. It is the Territorial capital with a fine capitol building now nearing completion, and has the Government Indian School, the Territorial Lunatic Asylum, and other institutions, and is the general focus for the Territory. Like Tucson, it has its occasional wind and sand storm—perhaps not quite so often. At either place visitors who know how to adapt themselves to circumstances can be entirely comfortable, and in each they will find an intelligent, orderly, enterprising and most hospitable community. They will find a country full of mines, full of rich agricultural lands, abounding in cattle and horses, in vineyards and orchards, and the beginnings of very successful orange groves—a country, in fact, as full of promise for hardy and adventurous men now as California was in the fifties. Above all, if it has been their lot to search for health in far-off countries, they will revel in the luxury of being in their own land, among their own countrymen, within easy reach of their friends by telegraph or rail, and in a climate as good of its kind as any in the world.—Whitelaw Reid in "Tribune," December 2, 1896.

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